ABCTRACT

Background:

One of the most important stages of endodontic treatment is cleaning & shaping of root canals within exact working length.up to now many methods have been introduced to determine working length and one of the common methods for determining the working length is radiograghy. Although there are many limitations in radiograghic method and much effect has been making for the progress of technology in many ways of this field and following these attempts, electronic apex locators were introduced. Our purpose in this in vitro study is to determine the working length by DELTA apexlocator and to compare with radiography.

Material and Methods:

Sixty seven extracted single-rooted permanent teeth were used for this study. The actual working length of each root canal was determined visually, then working length of the all canals were determined by Radiographic method and DELTA apex locator. Data were analyzed by paired T test.

Results:

In the present study in 44 canals of 67 canals the working length determination was similar between Radiographic method and DELTA apex locator.

Conclusion:

Results presented an accuracy of %77/6 for DELTA apex locator and %97 for radiography

When considering the margin of ±0/5mm.

Key Words:

Apical Constriction, Working length, Apex locator, Radiographic Working length